ISSN: 0974 – 3987
IJBST (2008), 1(1): 22-24

Nasal Tooth: Report of a Rare Case and Radiographic Localization

Dr. Arun Subramaniam, Dr. Digambar Sable and Dr. Mahesh Chavan

Abstract: *The ectopic eruption of the teeth into the nasal cavity is a rare phenomenon. We report a case involving the nasal cavity. We describe the radiological presentation of this case and discuss its etiology, possible complication, diagnosis and treatment.*

I. CASE REPORT

A fifty years old male patient referred to department of oral medicine and radiology for generalized alveolar bone loss assessment. On panoramic radiograph tooth like radiopaque mass reported in the right nasal cavity above palate in anterior region with missing tooth 12 (Figure 1).

Intraoral examination revealed missing left lateral incisor with no notable swelling in buccal vestibule (Figure 2) and hard palate. This was an incidental finding and patient never had complaint about it.

A deeply placed intraoral periapical (IOPA) radiograph (Figure 3) showed tooth like radiopacity in right nasal fossa having same attenuation as roots of other teeth visible in radiograph. Radiopaque mass revealed clearly distinguished enamel cap and distinct root with resorption of apical 1/3 on proximal aspect. Radiopaque mass appears to be floating in nasal fosse with no bony attachments.

Lateral skull view (Figure 4) showed tooth like radiopacity placed at the floor of nasal cavity above anterior nasal spine and hard palate in front of anterior border of maxillary sinus.

Dr. Arun Subramaniam is with Department of Oral Medicine & Radiology, Dr. D. Y. Patil Dental College & Hospital, Pimpri, Pune, India as Professor and Head

Dr. Digambar Sable is with Department of Oral Medicine & Radiology, Dr. D. Y. Patil Dental College & Hospital, Pimpri, Pune, India as Reader

Dr. Mahesh Chavan is with Department of Oral Medicine & Radiology, Dr. D. Y. Patil Dental College & Hospital, Pimpri, Pune, India as postgraduate student. Email: drmahesh_1000@yahoo.co.in

Posteroanterior skull view (Figure 5) revealed radiopacity just above floor of right nasal fossa beside the inferior nasal turbinate.

Standard occlusal view (Figure 6) confirmed tooth like radiopacity with consistent location in right side of nasal fossa.

Figure 1. Cropped panoramic radiograph showing radiopaque mass in the right nasal cavity above palate in anterior region with missing tooth 12.

Figure 2. Intraoral photograph showing missing tooth 12.

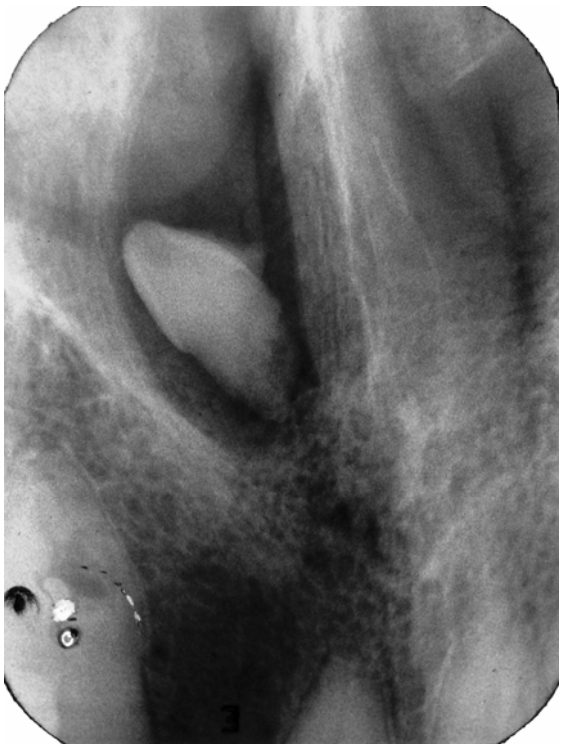

Figure 3. Deeply placed IOPA radiograph showed tooth like radiopacity in right nasal fossa having same attenuation as roots of other teeth visible in radiograph. Radiopaque mass revealed clearly distinguished enamel cap and distinct root.

Figure 4. Lateral skull view showed tooth like mass at the floor of nasal cavity above anterior nasal spine and hard palate in front of the anterior border of maxillary sinus.

II.DISCUSSION

Ectopic eruption of a tooth into the dental environment occurs commonly whereas ectopic eruption of a tooth in other sites is rare.Those that have been reported include the nasal cavity[1], chin [2] and maxillary sinus[3]. Eruption of teeth in oral cavity in uncommon [1,4]; however, the identification of such teeth can be important since they have the potential to cause considerable morbidity [5].

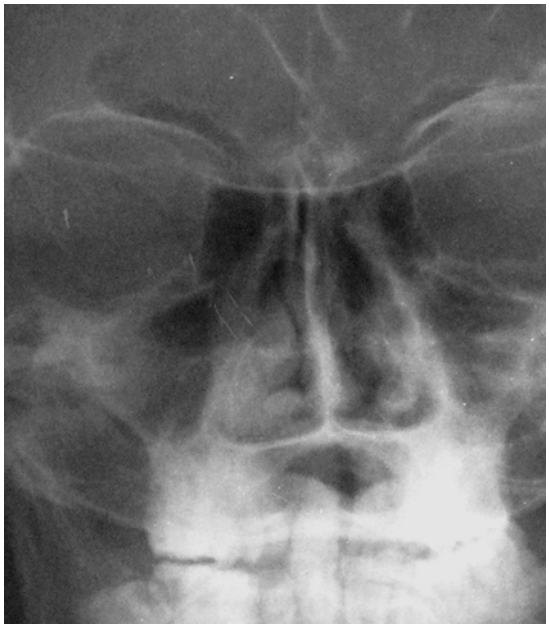

Figure 5. PA Skull view revealed radiopaque mass in right nasal fossa below middle nasal turbinate.

Figure 6. Oblique occlusal projection showing inverted tooth in nasal cavity.

Ectopic teeth may be permanent, deciduous or supernumerary. Most cases are asymptomatic [2] and are usually found during routine clinical or radiological investigations as in our case. With the increased use of panoramic radiographs [1] there is likely to be a rise in the incidence of ectopic teeth detected. Clinicoradiological features [4] of our case appear to be an ectopic eruption of tooth12.

The etiology of intranasal teeth [5] is unclear; it has been attributed to obstruction at the time of tooth eruption secondary to crowded dentition, persistent

deciduous teeth, or exceptionally dense bone. Other proposed pathogenetic factors include a genetic predisposition; developmental disturbances, such as a cleft palate; rhinogenic or odontogenic infection; and displacement as a result of trauma or cysts.

Intranasal teeth usually present with a variety of signs and symptoms, including mild facial pain, a feeling of something in the nose, unilateral nasal obstruction, headaches, recurrent epistaxis, nasal congestion, mild fever, external deviation of the nose, foul smelling serous or purulent rhinorrhea and crusting of the nasal mucosa [5]. Complications of nasal teeth include rhinitis caseosa with septal perforation, aspergillosis, naso-oral fistula and nasolacrimal duct obstruction[6].

The differential diagnosis of nasal teeth [6] includes radiopaque foreign body; rhinolith; inflammatory lesions due to syphilis, tuberculosis, or fungal infection with calcification; benign tumors, including hemangioma, osteoma, calcified polyps, enchondroma, and dermoid; and malignant tumors, such as chondrosarcoma and osteosarcoma. However, the CT findings of tooth-equivalent attenuation and a centrally located cavity are highly discriminating features that help to confirm the diagnosis.

In our case intraoral periapical radiograph (IOPA) had an important value in diagnosis as it revealed radiopaque tooth like mass with clearly distinguished enamel cap, distinct root and having tooth-equivalent attenuation. Other radiographic views confirmed the findings and helped in localization of tooth.

The definitive treatment is surgical removal of the tooth. Asymptomatic teeth should also be removed [1,4] or at least followed radiographically [5]. We decided to follow up the case regularly.

Removal of nasal teeth is generally advocated to alleviate the symptoms and prevent complications. When an extra tooth is in the nasal cavity, the procedure is usually a minor operation. When a tooth has a bony socket in the floor of the nose, it may be extremely difficult to extract [7]. The best time to remove the tooth is after the roots of the permanent teeth have completely formed, to avoid injury during their development [8].

III.REFERENCES

[1] S. Elango, S.P. Palaniappan. (1991) Ectopic tooth in the roof of the maxillary sinus. Ear Nose Throat J. 70: 365-366

[2] D.D. Carver, S. Peterson, T. Owens. (1990) Intranasal teeth. Oral Surg Oral Med Oral Pathol. 70: 804- 805

[3] G.H. Gadalla. (1987) Mandibular incisor and canine ectopia. A case of two teeth in the chin. Br Dent J. 163: 236

[4] R. Di Felice, T. Lombardi. Ectopic third molar in the maxillary sinus. Aust Dent J. 40: 236- 237

[5] R.A. Smith, N.C. Gordon, S.F. De Luchi. (1979) Intranasal teeth: report of two cases and review of the literature. Oral Surg Oral Med Oral Pathol. 47:120–122

[6] Albert Chen, Jon-Kway Huang, Sho-Jen Cheng, and Chin-Yin Sheu. (2002) Nasal Teeth: Report of Three Cases. Am J Neuroradiol. 23: 671– 673

[7] P. Wurtele, G. Dufour. (!994) Radiology case of the month: a tooth in the nose. J Otolaryngol. 23: 67– 68

[8] F.D. Martinson, W.P. Cockshott. (1972) Ectopic nasal dentition. Clin Radiol. 23: 451– 454